

31345

STEREO INTEGRATED AMPLIFIER

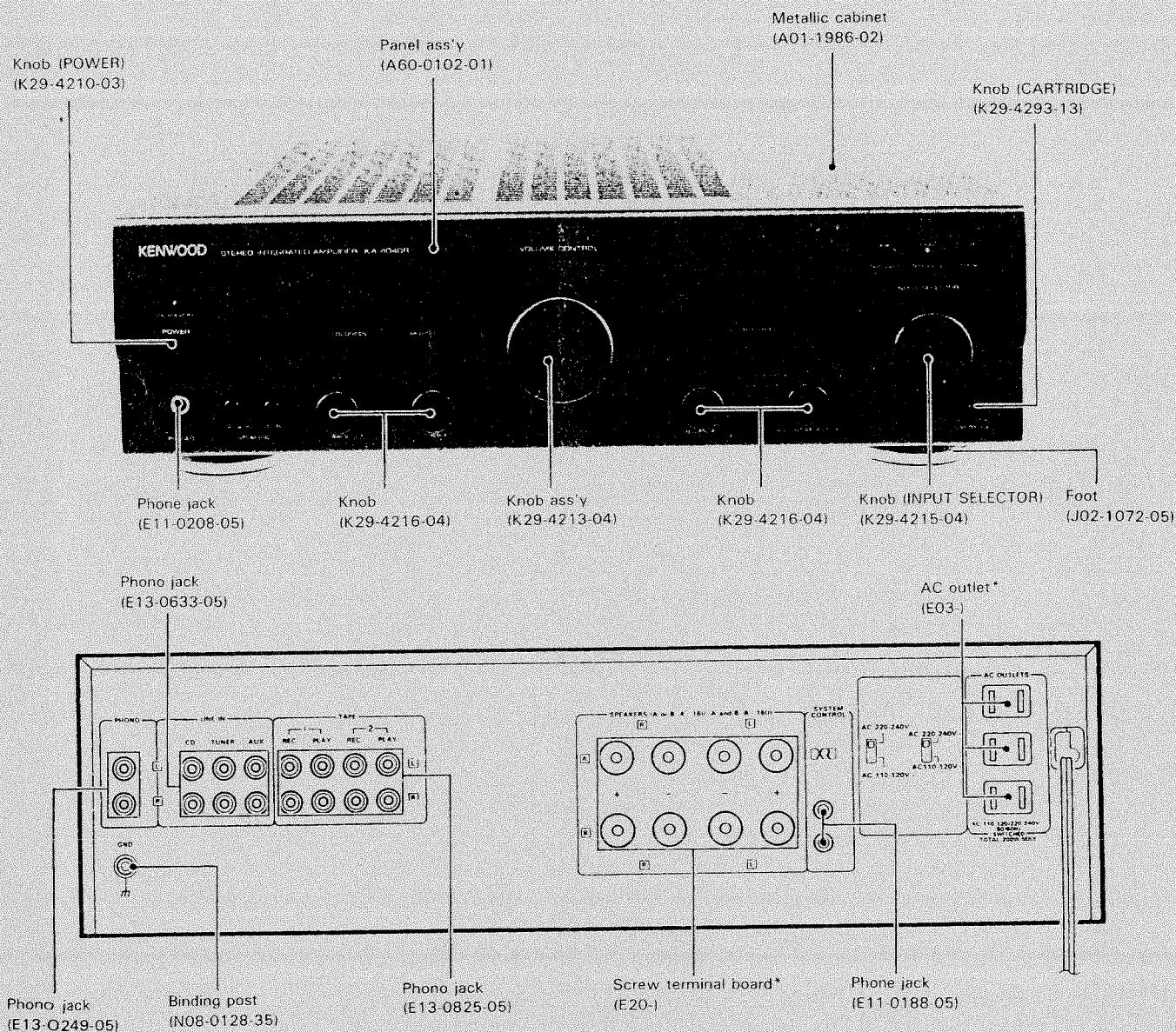
KA-4040R

SERVICE MANUAL

KENWOOD

KENW-03205

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B51-4413-00(S)2007




*Refer to parts list on page 25.

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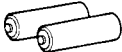
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Accessories

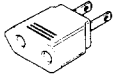
Remote control unit 1
(X94-1000-00) (A09-0115-13: Battery cover)



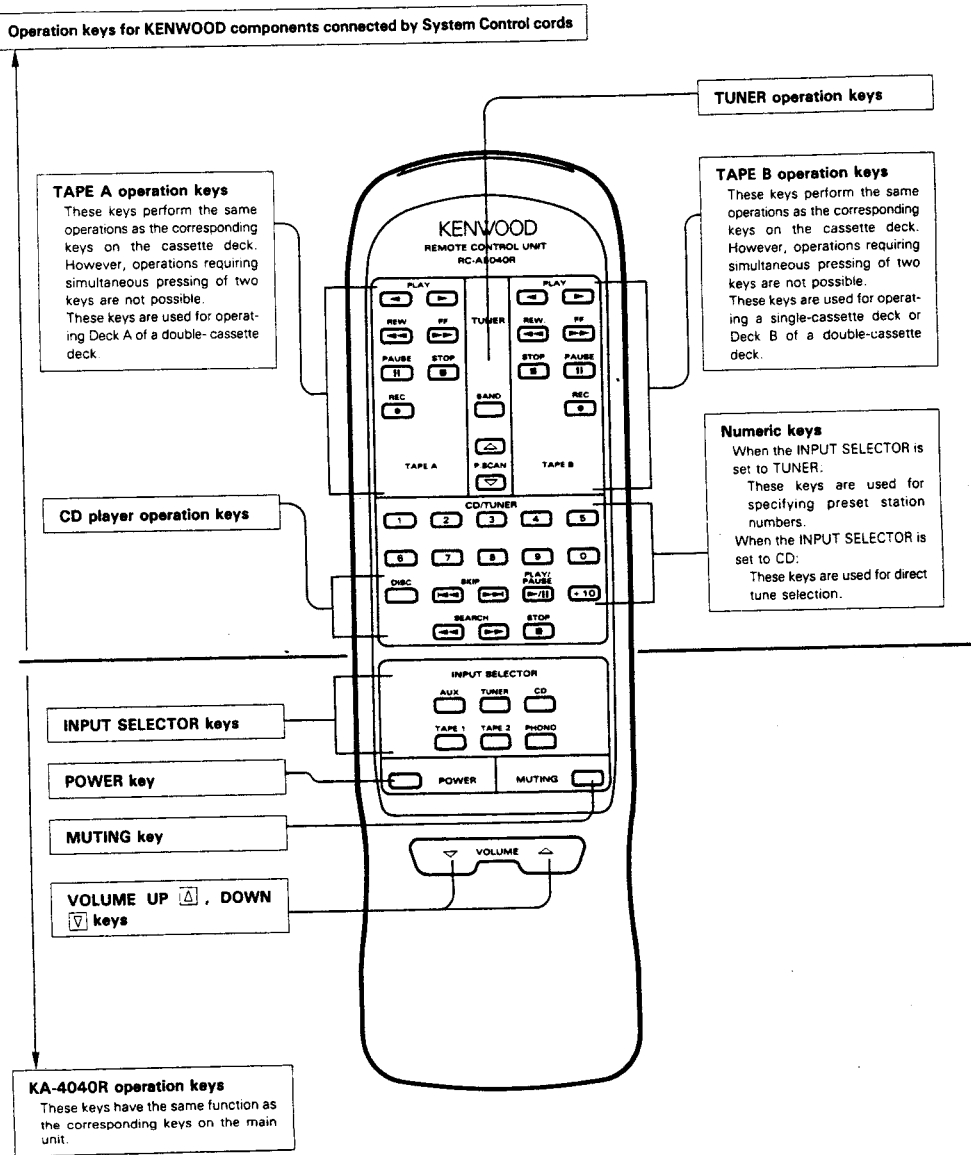
Batteries
(R03/UM-4/"AAA"/) 2



AC plug adaptor 1
(Except for some areas.)
For the unit with a European AC plug in areas other than Europe.
(E03-0115-05)



REMOTE CONTROL OPERATION



MICROPROCESSOR (μ PD75104G-778)

1. TEST MODE

1.1 Test Mode Using Mainframe Keys

(1) Setting

Plug in while pressing the SOURCE DIRECT key.

(2) Contents

- Switch the power on so that all LED indicators go on. Operate all TACT keys and the rotary encoder to cancel all the LED indicators that go on. In the all-light mode, all the INPUT SELECTOR LED indicators do not go on at the same time. The next SELECTOR LED indicator goes on approximately 100 ms after one SELECTOR LED indicator goes on in the same order as during input selector selection using the rotary encoder, because the output current exceeds the absolute maximum rating when all the INPUT SELECTOR LED indicators go on, since each LED indicator is directly driven by a microcomputer.
- When the LOUDNESS key is pressed while the test mode is set with a mainframe key, The electromotive VOLUME decreases. When the MUTING key is pressed, the VOLUME increases. The VOLUME stops when the SOURCE DIRECT key is pressed.

(3) Cancellation

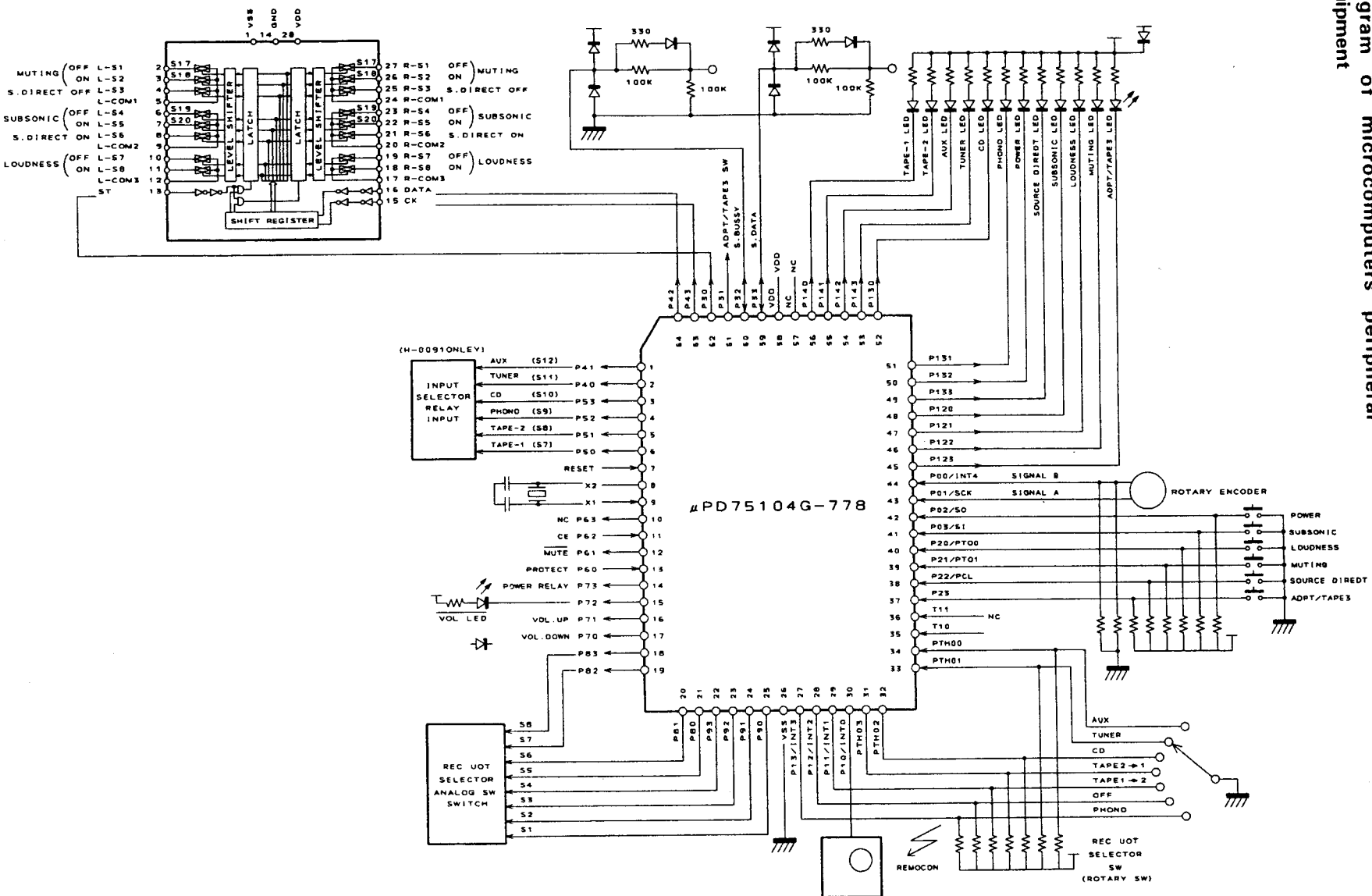
- Plug off. If there a backup function is to be used, plug off and destroy the backup check data when a test mode flag is set during backup operation.

2. INITIALIZING

Insert the AC plug into a wall outlet while pressing the POWER key.

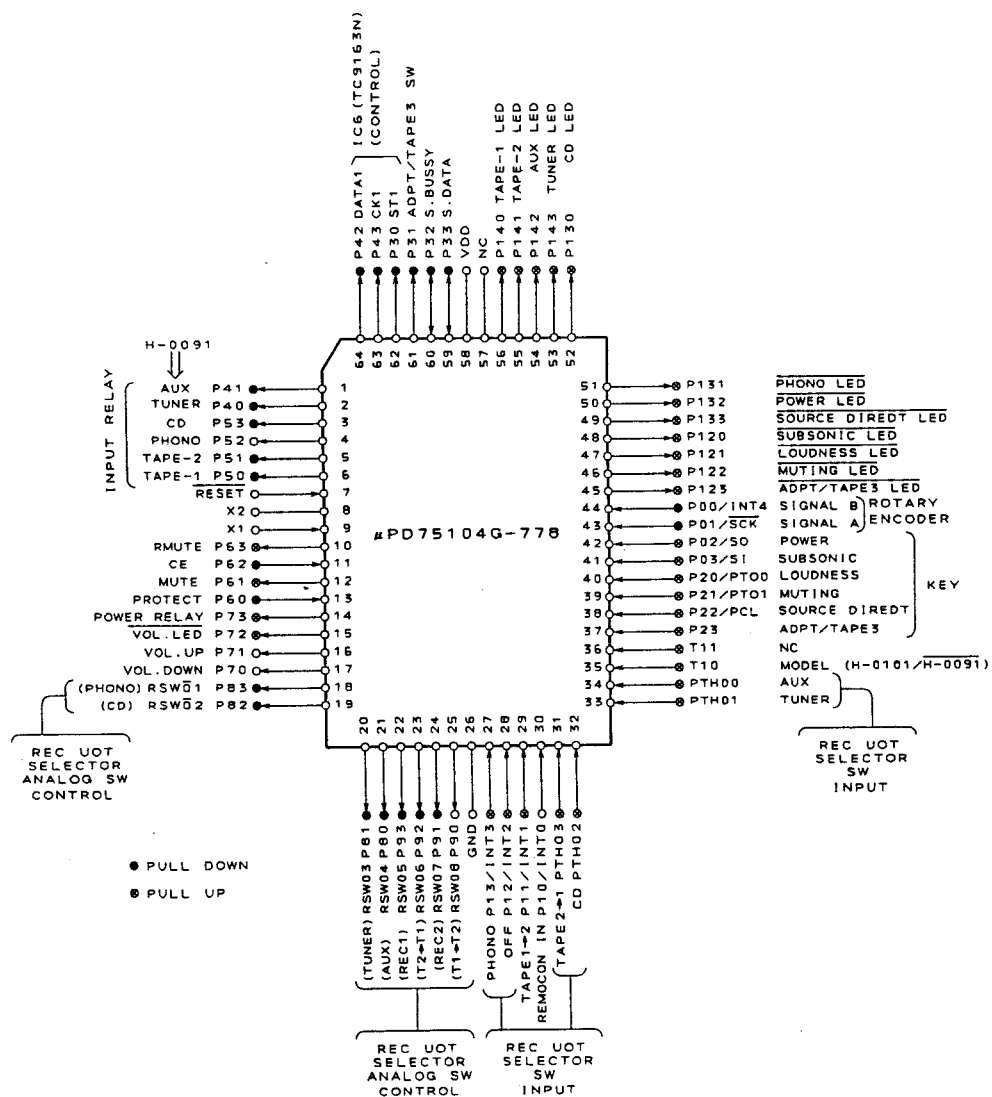
CIRCUIT DESCRIPTION

3. Diagram of microcomputers peripheral equipment



CIRCUIT DESCRIPTION

4. PIN CONNECTIONS



KA-4040R

CIRCUIT DESCRIPTION

Pin No.	Pin name	I/O	Name	Description
30	PIO/INITO	I	REMOCON IN	Remote control signal input pin.
31	PTH03	I	RSWI (TAPE2→1)	REC out selector state setting input pin (TAPE2 → TAPE1). (Low when active.)
32	PTH02	I	RSWI (CD)	REC out selector state setting input pin (CD). (Low when active.)
33	PTH01	I	RSWI (TUNER)	REC out selector state setting input pin (TUNER). (Low when active.)
34	PTH00	I	RSWI (AUX)	REC out selector state setting input pin (AUX). (Low when active.)
35	TIO	I		Unused.
36	TI1	I		Unused.
37	P23	I	KEYIN (ADPT/TAPE3)	ADPT/TAPE3 key input pin (low when active). Enters the input mode during backup.
38	P22/PCL	I	KEYIN (SOURCE DIRECT)	SOURCE DIRECT key input pin (low when active). Enters the input mode during backup.
39	P21/PTO1	I	KEYIN (MUTING)	MUTING key input pin (low when active). Enters the input mode during backup.
40	P20/PTO0	I	KEYIN (LOUDNESS)	LOUDNESS key input pin (low when active). Enters the input mode during backup.
41	PO3/SI	I	KEYIN (SUBSONIC)	SUBSONIC key input pin (low when active).
42	PO2/SO	I	KEYIN (POWER)	POWER key input pin (low when active). Enters the input mode during backup.
43	PO1/SCK	I	REI A	ROTARY ENCODER A signal input pin. Enters the input mode during backup.
44	PO0/INT4	I	REI B	ROTARY ENCODER B signal input pin.
45	PI23	O	ADPT/TAPE23 LED	ADPT/TAPE3 LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
46	PI22	O	MUTING LED	MUTING LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
47	PI21	O	LOUDNESS LED	LOUDNESS LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
48	P120	O	SUBSONIC LED	SUBSONIC LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
49	P133	O	SOURCE DIRECT LED	SOURCE DIRECT LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
50	P132	O	POWER LED	POWER LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
51	PI31	O	PHONO LED	PHONO LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
52	PI30	O	CD LED	CD LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.

CIRCUIT DESCRIPTION

Pin No.	Pin name	I/O	Name	Description
53	PI43	O	TUNER LED	TUNER LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
54	PI42	O	AUX LED	AUX LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
55	PI41	O	TAPE2 LED	TAPE1 LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
56	PI40	O	TAPE1 LED	TAPE1 LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
57	NC			
58	Vdd			Microcomputer power supply pin.
59	P33	I/O	SDATA	Serial communication SDATA signal input/output pin. Enters the input mode during backup.
60	P32	I/O	SBUSY	Serial communication SBUSY signal input/output pin. Enters the input mode during backup.
61	P31	O	ADPT/TAPE3	ADPT/TAPE3 analog switch control signal output pin. ADPT/TAPE3 ON: High ADPT/TAPE3 OFF: low Outputs a low signal in the backup mode.
62	P30	O	ST1	FUNCTION IC TC9163N ST signal output pin for MUTING, SUBSONIC, SOURCE DIRECT, and LOUDNESS. Usually set low. Outputs a low signal in the backup mode.
63	P43	O	CK1	FUNKTION IC TC9163N CK signal output pin for MUTING, SUBSONIC, SOURCE DIRECT, and LOUDNESS. Usually set low. Outputs a low signal in the backup mode.
63	P43	O	DATA1	FUCTION IC TC9163N DATA signal output pin for MUTING, SUBSONIC, SOURCE DIRECT, and LOUDNESS. Usually set low. Outputs a low signal in the backup mode.

ADJUSTMENT/REGLAGE/ABGLEICH

ADJUSTMENT

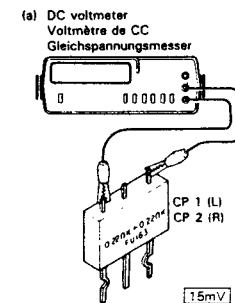
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (L) CP2 (R) (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	15 mV (34 mA).	(a)

REGLAGES

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINTS DE L'ALIGNMENT	ALIGNER POUR	FIG.
Sauf indication contraire, régler comme suit les commandes respectives: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	COURANT DE POLARISATION	—	Connecter un voltmètre de CC SUR CP1 (G) CP2 (D) (X09-)	VOLUME: 0	VR1 (G) VR2 (D) (X09-)	15 mV (34 mA).	(a)

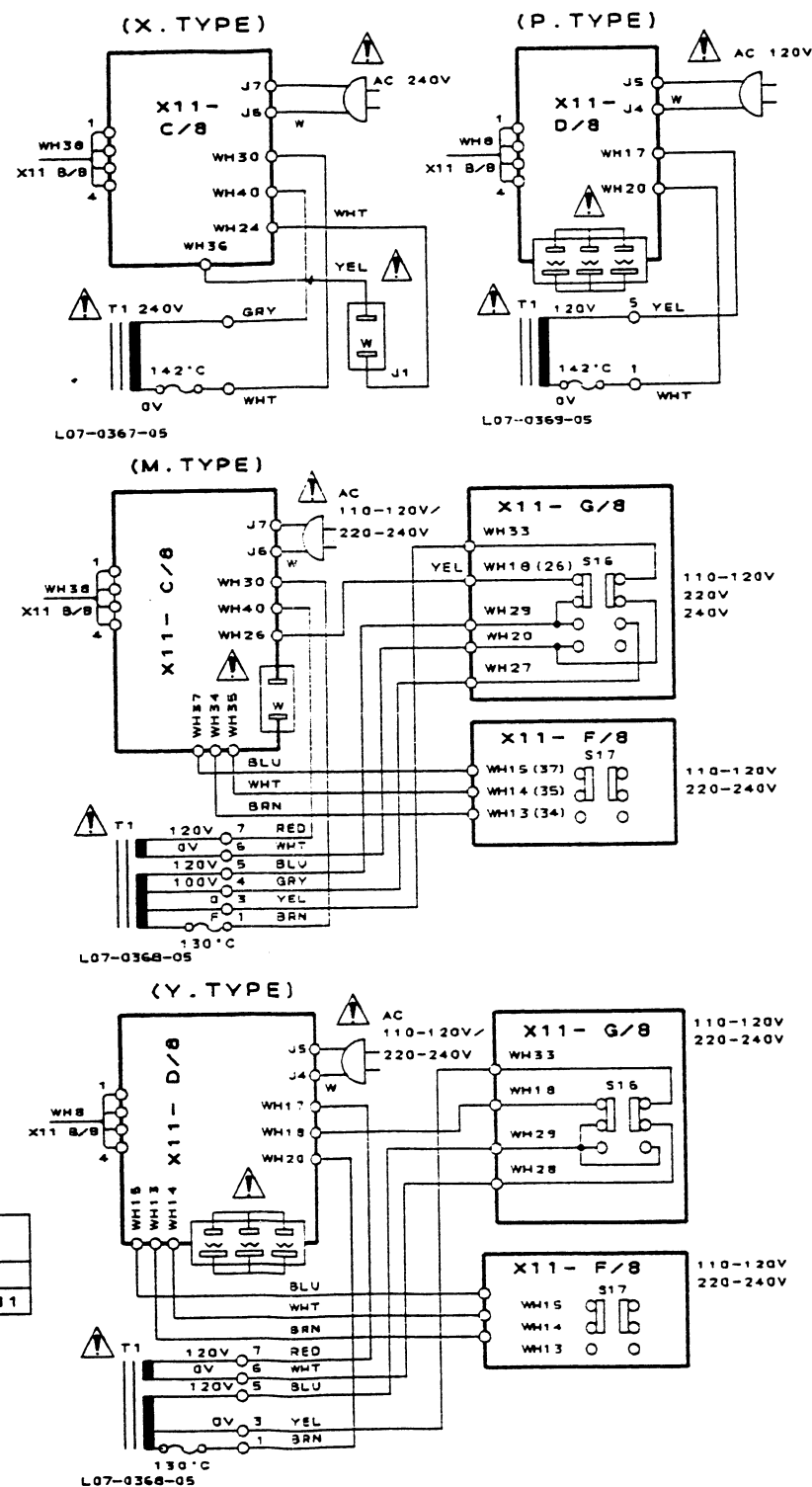
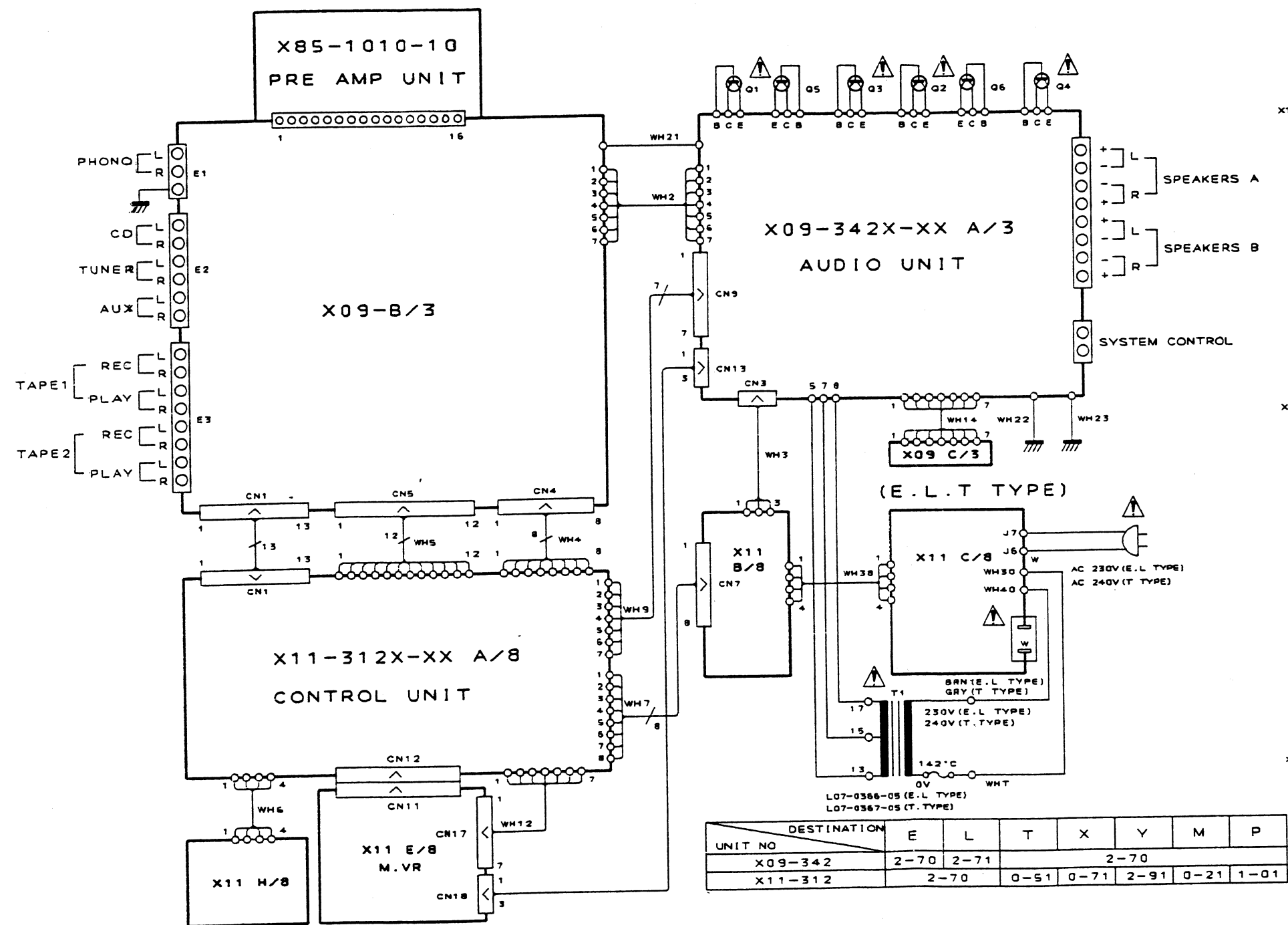
ABGLEICH

NR.	GENGENSTAND	EINGANGS-EINSTELLUNG	AUSANG-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
Wenn nicht anders angegeben, die einzelnen Schalter wie folgt einstellen: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CP1 (L) CP2 (R) anschließen. (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	15 mV (34 mA).	(a)



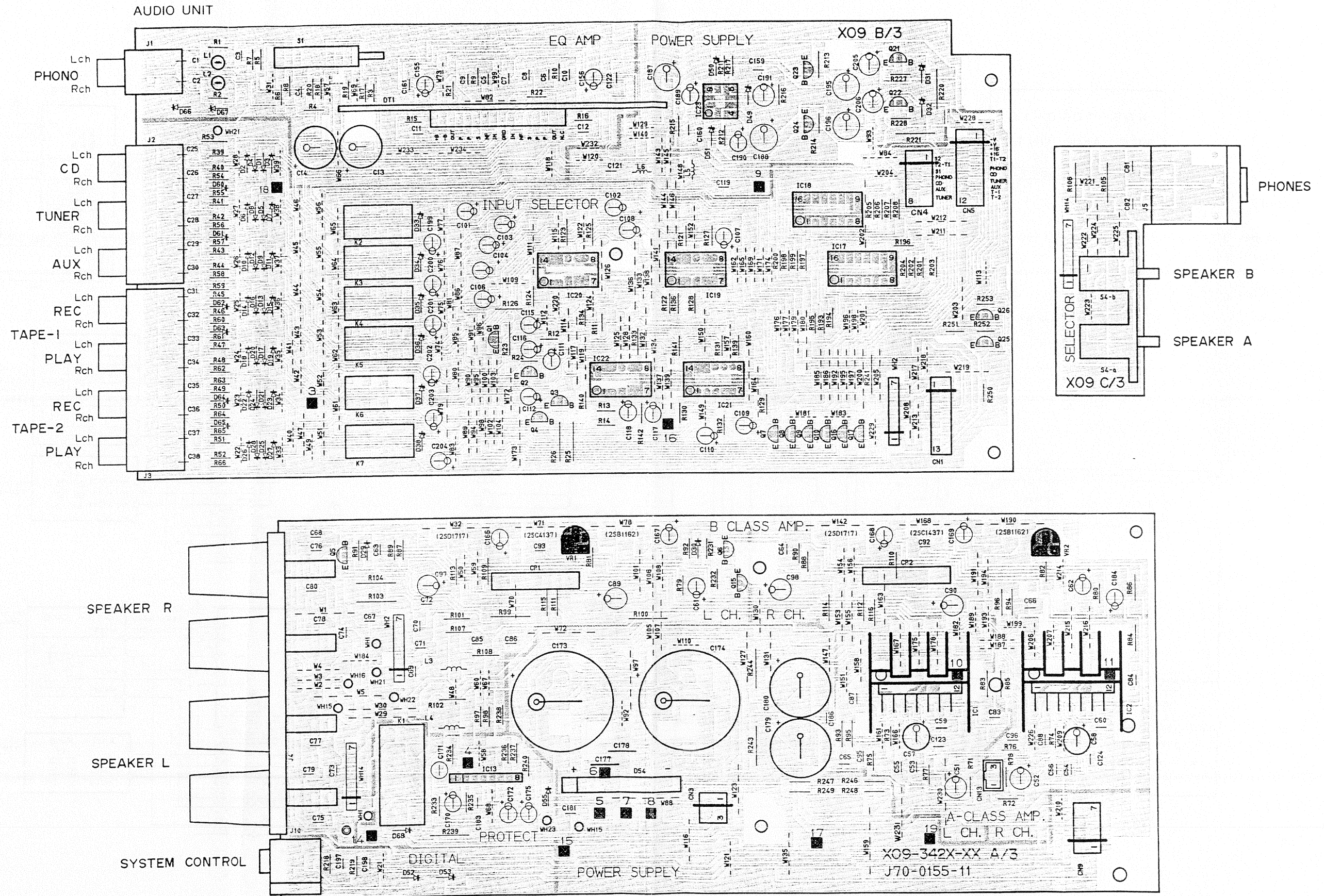
KA-4040R KA-4040R

WIRING DIAGRAM



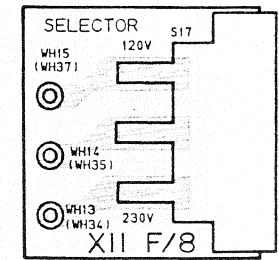
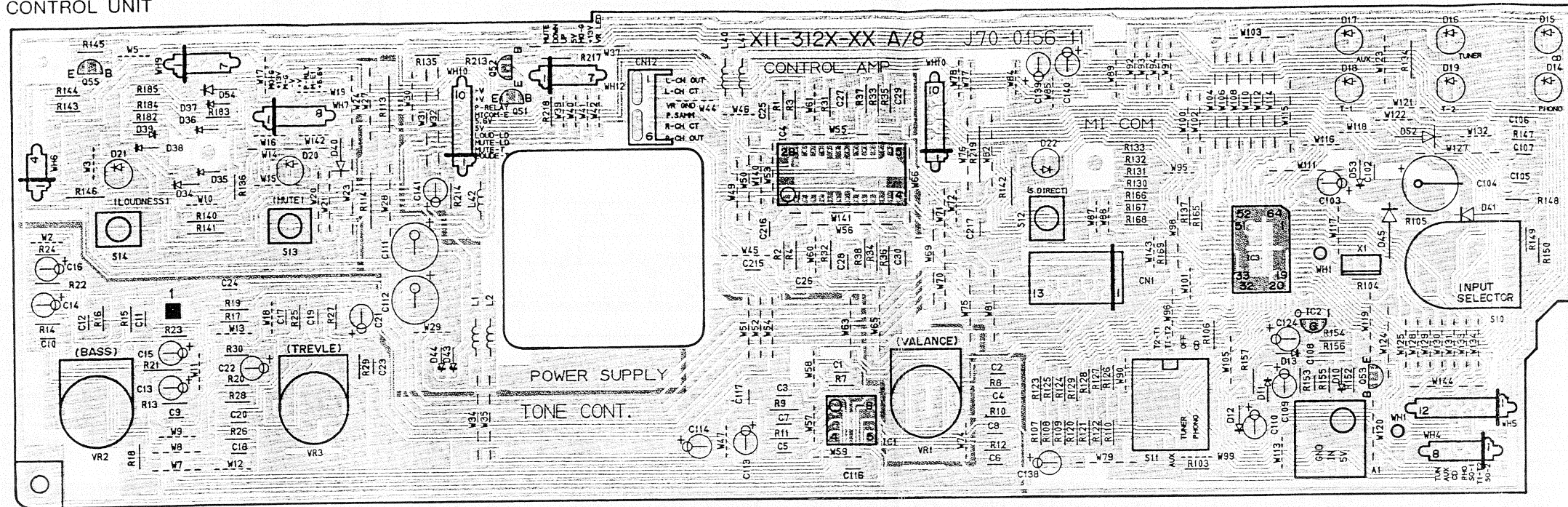
UNIT NO	DESTINATION	E	L	T	X	Y	M	P
X09-342		2-70	2-71		2-70			
X11-312		2-70	0-51	0-71	2-91	0-21	1-01	

PC BOARD (Component side view)

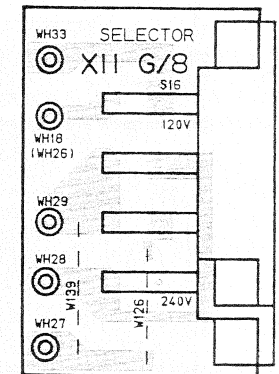


PC BOARD (Component side view)

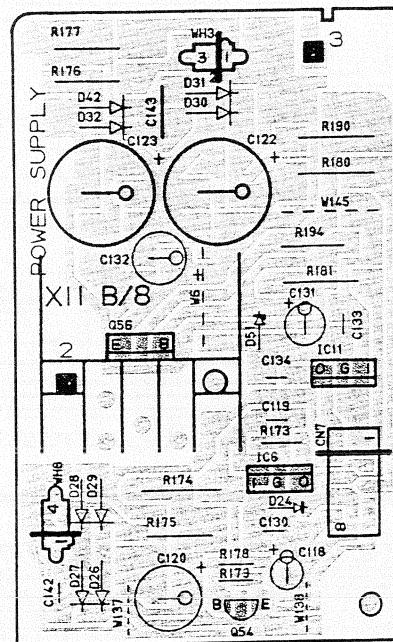
CONTROL UNIT



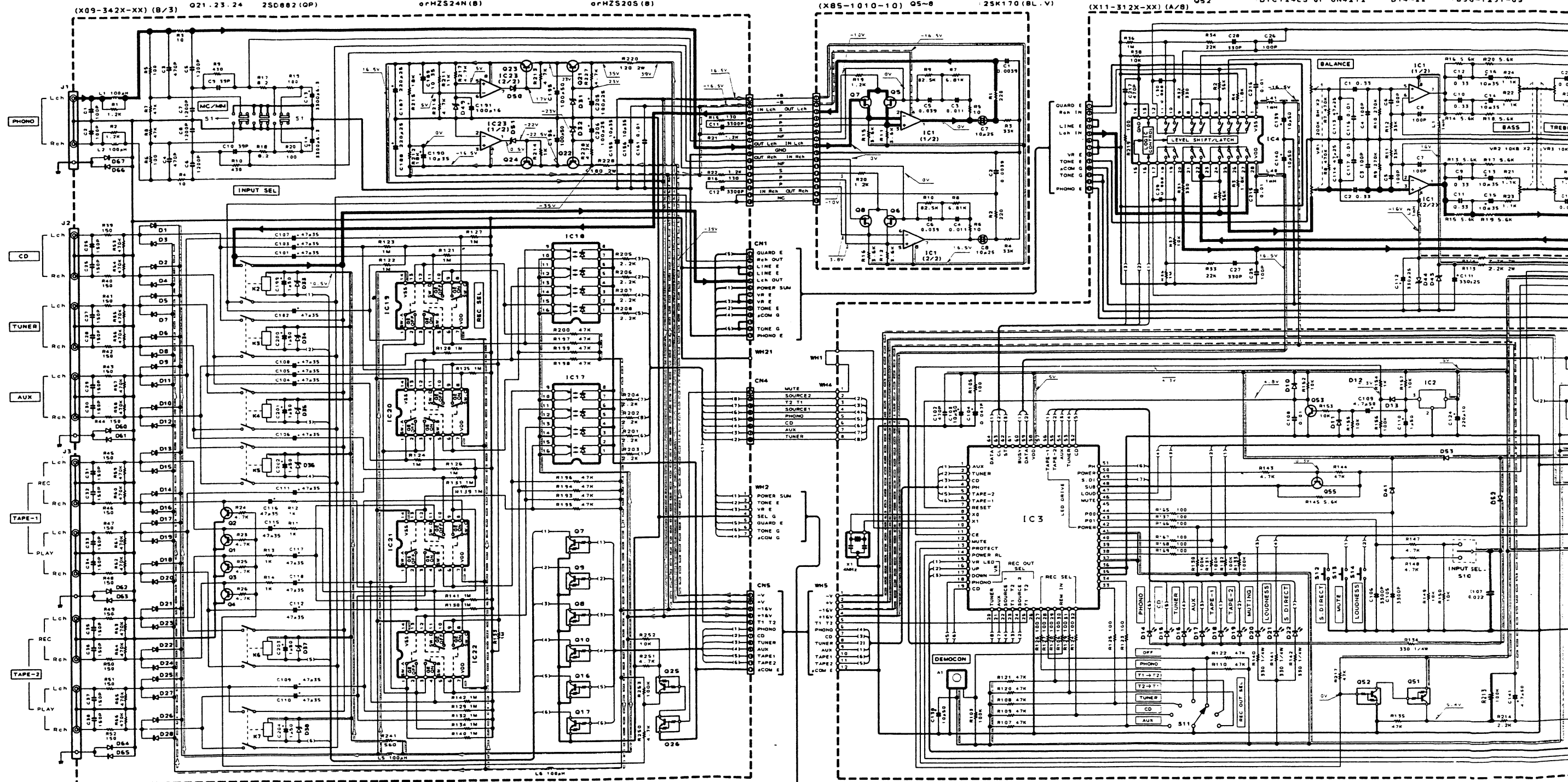
VOLTAGE SELECTOR



VOLTAGE SELECTOR



IC17-18	ON3134	Q25	DTA124ES	Q33-38	RD11ES (B)	(X11-312X-XX) (A/B)	Q53	2SC1740 (QR) or 2SC1
IC19-22	LC4966	Q26	DTC143TS	049	or HZS11N (B)	IC1	Q55	2SA933S (QR) or 2SA1
IC23	NJM45650-D	D1-28	1SS133	050	or HZS5.15 (B2)	IC2		
			or HSS104	051	RD15JS (B)	IC3		
Q1-4	2SC2878 (B)	D61-68	1SS151		or HZS155 (B)	IC4		
Q7-10, 16, 17	DTC143TS		or HSS104A		RD20JS (B)			
Q22	2SB772 (QP)	D31-32	RD24ES (B)		or HZS20S (B)	Q51	DTA124ES or UN4112	010-13, 34-39, 41, 45, 53
Q21, 23, 24	2SD882 (QP)		or HZS24N (B)			Q52	DTC124ES or UN4212	D14-22 B30-1291-05



X09-342X-XX

COUNTRY	ABB.	UNIT NAME
EUROPE	E	X09-3422-70
SCANDINAVIA	L	X09-3422-71
CANADA	P	X09-3422-70
AAFS EUROPE	Y	X09-3422-70
OTHER AREAS	M	X09-3422-70
AUSTRALIA	X	X09-3422-70
ENGLAND	T	X09-3422-70

X11-312X-XX

COUNTRY	ABB.	UNIT NAME	C/B	D/B	F/B	G/B	C188 189	C190 191	F1	F2	F3	F4	T1	T2
SCANDINAVIA/EUROPE	E, L	X11-3122-70	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CANADA	P	X11-3121-01	NO	YES	NO	NO	NO	NO	5A 125V	NO	NO	NO	L01-7651-05	NO
AAFS EUROPE	Y	X11-3122-91	NO	YES	YES	YES	NO	NO	NO	T2.5A 250V	NO	NO	L01-7653-05	NO
OTHER AREAS	M	X11-3120-21	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	L01-7653-05	NO
AUSTRALIA	X	X11-3120-71	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	L01-7657-05	NO
ENGLAND	T	X11-3120-51	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	L01-7657-05	NO

2SA992

2SC1845

2SC2003

2SC2878

2SB772

2SD882

2SD1266

DTA124ES

DTC124ES

DTC143TS

UN4112

2SA933S

2SC1740S

2SB1162BD*5

2SD1717BD*5

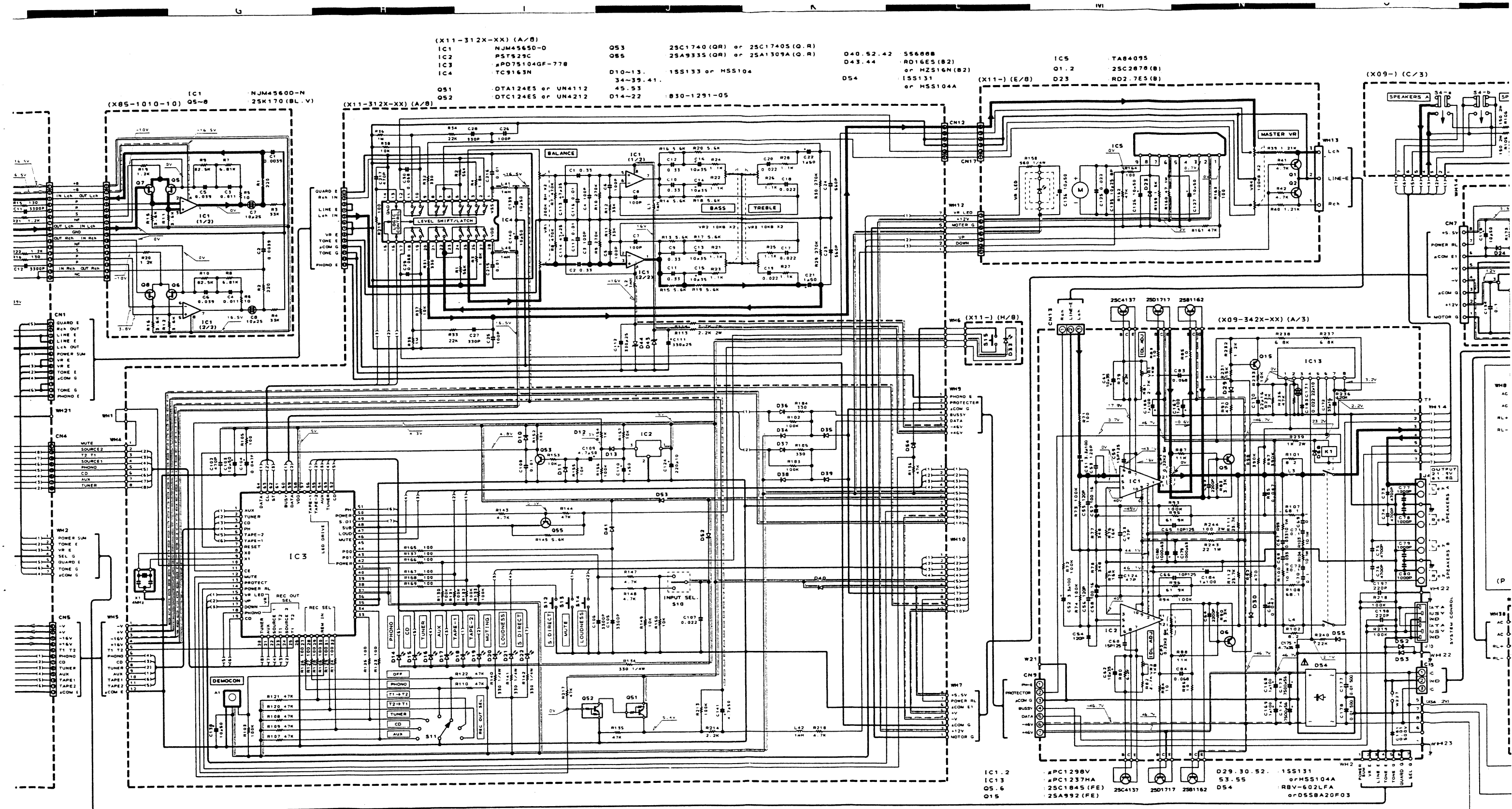
UN4212

2SA1309A

2SC3311A

NJM456 0D-N

NJM456 5D-D



UNIT NAME	9-1422-70	9-1422-71	9-1422-72	9-1422-73	9-1422-74	9-1422-75	9-1422-76	9-1422-77
SCANDINAVIA/EUROPE	E.L	X11-3122-70	YES	NO	NO	NO	NO	NO
CANADA	P	X11-3121-01	NO	YES	NO	NO	NO	NO
AFES EUROPE	Y	X11-3122-91	NO	YES	YES	YES	YES	NO
OTHER AREAS	M	X11-3120-21	YES	NO	YES	YES	YES	NO
AUSTRALIA	X	X11-3120-71	YES	NO	NO	NO	NO	NO
ENGLAND	T	X11-3120-51	YES	NO	NO	NO	NO	NO

X11-312X-XX																																
COUNTRY	ABR.	UNIT NAME	C/B	D/B	F/B	G/B	C188 189	C190 191	F1	F2	F3	F4	T1	T2	S16	WH13 14 15 18	WH16 19	WH17 20	WH24	WH26 34 35 37	WH27	WH29 28 33	WH30 40	WH36	WH146	W36	W139	W147	J1			
SCANDINAVIA/EUROPE	E.L	X11-3122-70	YES	NO	NO	NO	C91-1421-05	NO	NO	NO	T2.5A 250V	T2.5A 250V	NO	L01-7653-05	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	NO	YES	YES				
CANADA	P	X11-3121-01	NO	YES	NO	NO	NO	C91-0971-05	5A 125V	NO	NO	NO	L01-7651-05	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO				
AFES EUROPE	Y	X11-3122-91	NO	YES	YES	YES	NO	C91-1421-05	T2.5A 250V	T2.5A 250V	NO	NO	L01-7653-05	NO	S62-0001-05	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO				
OTHER AREAS	M	X11-3120-21	YES	NO	YES	YES	NO	NO	NO	NO	T2.5A 250V	T2.5A 250V	NO	L01-7653-05	NO	YES	NO	NO	YES	YES	YES	YES	NO	NO	YES	NO	YES	YES				
AUSTRALIA	X	X11-3120-71	YES	NO	NO	NO	C91-1421-05	NO	NO	NO	T2.5A 250V	NO	NO	L01-7657-05	NO	NO	NO	NO	YES	NO	NO	YES	YES	YES	YES	NO	YES	YES				
ENGLAND	T	X11-3120-51	YES	NO	NO	NO	C91-1421-05	NO	NO	NO	T2.5A 250V	NO	NO	L01-7657-05	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	YES	YES				

DTA124ES
DTC124ES
DTC143TS
UN4112
2SA933S
2SC1740S

2SB1162BD*5
2SD1717BD*5

UN4212
2SA1309A
2SC3311A

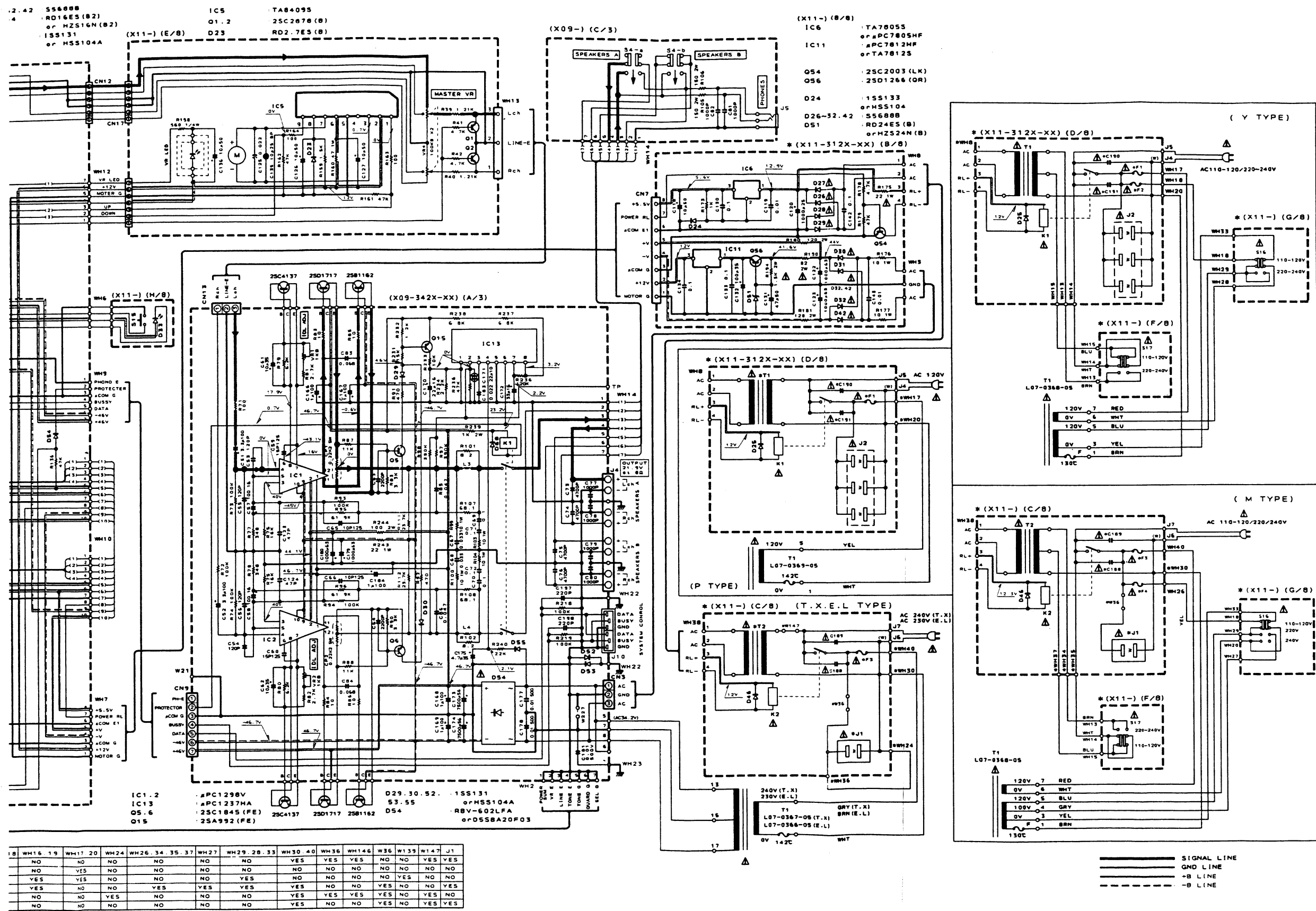
NJM4560D-N
NJM4565D-D

TA8409S

UPC1237HA

UPC7805HF
UPC7812HF

PST529

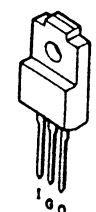


DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or and units.

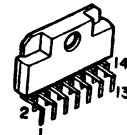
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u U. geringfügig.

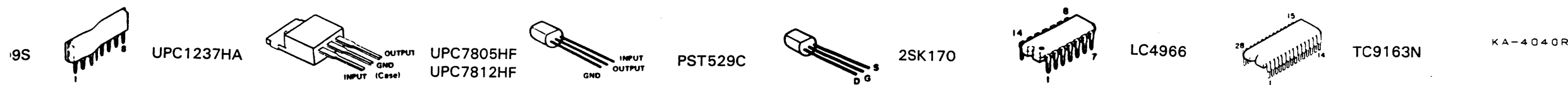
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



TA78055
TA78125



UPC1298V



KA-4040R
KENWOOD

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 1

Ref. No. 参照番号	Address 位置	New 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
KA-4040R						
601	1A	*	A01-1986-02	METALLIC CABINET		
602	2A, 2B	*	A60-0102-01	PANEL ASSY		
605	1B	*	X94-1000-00	REMOTE CONTROL ASSY		
606	1B	*	A09-0115-13	BATTERY COVER		
609	2A, 3B	*	B01-0483-01	PANEL ESCUTCHEON		
612	2A	*	B43-0287-04	KENWOOD BADGE		
-	-	-	B46-0094-03	WARRANTY CARD	Y	
-	-	-	B46-0095-03	WARRANTY CARD	Y	
-	-	-	B46-0096-23	WARRANTY CARD	X	
-	-	-	B46-0121-03	WARRANTY CARD	P	
-	-	-	B46-0122-13	WARRANTY CARD	EL	
-	-	-	B46-0143-13	WARRANTY CARD	T	
-	-	-	B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-	-	-	B60-0559-00	INSTRUCTION MANUAL(ENGLISH)		
-	-	-	B60-0560-00	INSTRUCTION MANUAL(FRENCH)	ELMP	
-	-	-	B60-0561-00	INSTRUCTION MANUAL(GE, DU, IT)	EL	
-	-	-	B60-0562-00	INSTRUCTION MANUAL(CHINESE)	M	
-	-	-	B60-0656-00	INSTRUCTION MANUAL(SPANISH)	M	
613	3B, 3C	*	D21-1657-13	EXTENSION SHAFT(K29-4293 ASSY)		
615	1B	*	E03-0115-05	AC PLUG ADAPTER	M	
616	1D	*	E30-0459-05	AC POWER CORD	EL	
616	1D	*	E30-0459-05	AC POWER CORD	M	
616	1D	*	E30-0685-05	AC POWER CORD	Y	
616	1D	*	E30-0974-05	AC POWER CORD	P	
616	1D	*	E30-1341-05	AC POWER CORD	X	
616	1D	*	E30-1416-05	AC POWER CORD	T	
618	3B, 2C	*	E31-4747-05	PLAT CABLE (X09CN1-X11CN1) 13P		
-	-	-	E03-0114-05	AC OUTLET	X	
620	2A	*	G11-0155-14	SOFT TAPE (40X9X2)		
-	-	-	H50-0127-04	ITEM CARTON CASE		
-	-	-	H10-5168-02	POLYSTYRENE FOAMED FIXTURE		
-	-	-	H10-5169-02	POLYSTYRENE FOAMED FIXTURE		
-	-	-	H25-0225-04	PROTECTION BAG (850X450X0.03)	ELXYMP	
-	-	-	H25-0232-04	PROTECTION BAG (235X350X0.03)	ELXYMP	
-	-	-	H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-	-	-	H25-0654-04	PROTECTION BAG (0225 PRINTED)	T	
624	3C, 3D	*	J02-1072-05	FOOT		
625	1B, 1C	*	J19-0514-05	UNIT HOLDER		
626	1C	*	J19-3178-05	UNIT HOLDER		
627	2C	*	J19-3179-05	UNIT HOLDER		
628	2B	*	J19-3296-03	HEAD PHONE JACK HOLDER		
629	1D	*	J42-0083-05	POWER CORD BUSHING		
-	-	-	J61-0307-05	WIRE BAND		
630	3B	*	K29-3405-04	KN0B (K29-4293-04 ASSY)		
631	3A	*	K29-4210-03	KN0B POWER		
632	3A	*	K29-4213-04	KN0B ASSY MASTER VOLUME		
633	3A	*	K29-4215-04	KN0B INPUT SELECTOR		
634	3A	*	K29-4216-04	KN0B TONE, BAL, RECOUT SEL		
635	3B, 3C	*	K29-4293-13	KN0B CARTRIDGE		

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AFES(Europe) X:Australia M:Other Areas

△ indicates safety critical components.

DESTINATION LIST

	Destination
KA-4040R	E, L, T, X, Y, M, P

AUDIO UNIT

X09-3422-70	E, T, X, Y, M, P
X09-3422-71	L

CONTROL UNIT

X11-3120-21	M
X11-3120-51	T
X11-3120-71	X
X11-3121-01	P
X11-3122-70	E, L
X11-3122-91	Y

PRE AMPLIFIER UNIT

X85-1010-10	E, L, T, X, Y, M, P
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PARTS LIST

KA-4040R

KA-4040R

PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 2

Ref. No. 参照番号	Address 位置	New 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
640	1B	*	L07-0366-05	POWER TRANSFORMER	EL	
640	1B	*	L07-0367-05	POWER TRANSFORMER	TX	
640	1B	*	L07-0368-05	POWER TRANSFORMER	YM	
640	1B	*	L07-0369-05	POWER TRANSFORMER	P	
645	1D	*	N08-0128-35	BINDING POST (EARTH)		
A	1B, 1C	*	N09-0333-05	TAPPING SCREW (3X12)		
C	2A, 3A	*	N09-1445-05	SET SCREW (M3X8)		
E	1A	*	N09-2768-05	TAPTITE SCREW (4X8)		
F	2A	*	N30-3008-46	PAN HEAD MACHIN SCREW		
G	1C, 1D	*	N89-3008-45	BINDING HEAD TAPTITE SCREW		
J	3C, 3D	*	N89-4008-45	BINDING HEAD TAPTITE SCREW		
K	3C, 3D	*	N17-1030-46	TOOTHED LOCK WASHER		
Q1, 2		*	2SD17178D*5	TRANSISTOR		
Q3, 4		*	2SB11628D*5	TRANSISTOR		
Q5, 6		*	2SC4137F19(V, W)	TRANSISTOR		
AUDIO UNIT (X09-3422-70: E, T, X, Y, M, P, 2-71: L)						
C1, 2		*	CF92FV1H101K	MF 100PF K		
C3, 4		*	CF92FV1H471J	MF 470PF J		
C5, 6		*	CF92FV1H122J	MF 1200PF J		
C9, 10		*	CC45FSL1H390J	CERAMIC 39PF J		
C11, 12		*	CF92FV1H332J	MF 3300PF J		
C13, 14		*	C90-1951-05	ALUMINIUM ELECTROLYTIC C.		
C25, 38		*	CF92FV1H151K	MF 150PF K		
C51, 52		*	CE04KW2A3R3M	ELECTRO 3.3UF 100WV		
C53, 54		*	CC45FSL1H121J	CERAMIC 120PF J		
C55, 56		*	CF92FV1H121K	MF 120PF K		
C57, 58		*	C90-1917-05	ELECTRO 100UF 16WV		
C59, 60		*	CC45FSL1H150J	CERAMIC 15PF J		
C61, 62		*	CE04KW1V100M	ELECTRO 10UF 35WV		
C63, 64		*	CK45FB1H222K	CERAMIC 2200PF K		
C65, 66		*	CC45FSL1H100D	CERAMIC 10PF D		
C67, 68		*	CF92FV1H333J	MF 0.033UF J		
C69, 72		*	CF92FV1H104J	MF 0.10UF J		
C73, 76		*	CF92FV1H472J	MF 4700PF J		
C77, 82		*	CK45FB1H102K	CERAMIC 1000PF K		
C83, 84		*	CF92FV1H683J	MF 0.068UF J		
C85, 86		*	CF92FV1H473J	MF 0.047UF J		
C101-112		*	CE04KW1V470M	ELECTRO 47UF 35WV		
C115-118		*	CE04KW1V470M	ELECTRO 47UF 35WV		
C123, 124		*	CC45FSL1H470J	CERAMIC 47PF J		
C155, 156		*	CE04KW1J100M	ELECTRO 10UF 63WV		
C161		*	CF92FV1H103J	MF 0.010UF J		
C166-169		*	CE04KW2A010M	ELECTRO 1.0UF 100WV		
C170		*	CE04KW1C220M	ELECTRO 22UF 16WV		
C171		*	C90-1333-05	NP-ELEC 22UF 10WV		
C172		*	CE04KW1C330M	ELECTRO 33UF 16WV		
C173, 174		*	C90-1824-15	ALUMINIUM ELECTROLYTIC C.		
C175		*	CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C177, 178		*	CK45FB2H103P	CERAMIC 0.010UF P		
C179, 180		*	CE04KW1J102M	ELECTRO 1000UF 63WV		
C181		*	CK45FF1H103Z	CERAMIC 0.010UF Z		
C183		*	CF92FV1H223J	MF 0.022UF J		
C184		*	CE04KW2A010M	ELECTRO 1.0UF 100WV		
C187, 188		*	CE04KW1E221M	ELECTRO 220UF 25WV		

L:Scandinavia K:USA P:Canada
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△ indicates safety critical components.

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Teile ohne Parts No. werden nicht geliefert.

No. 3

Ref. No. 参照番号	Address 位置	New 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C189, 190		*	CE04KW1V100M	ELECTRO 10UF 35WV		
C191		*	CE04KW1C101M	ELECTRO 100UF 16WV		
C195, 196		*	CE04KW1H101M	ELECTRO 100UF 50WV		
C197, 198		*	CC45FSL2H221J	CERAMIC 220PF J		
C199-204		*	CE04KW1H010M	ELECTRO 1.0UF 50WV		
C205, 206		*	CE04KW1E101M	ELECTRO 100UF 25WV		
J1		*	E13-0249-05	PHONE JACK PHONE		
J2		*	E13-0633-05	PHONE JACK CD, TUNER, AUX		
J3		*	E13-0825-05	PHONE JACK TAPE1, TAPE2		
J4		*	E20-0839-15	SCREW TERMINAL BOARD SPEAKERS	ETXYMP	
J4		*	E20-0840-15	SCREW TERMINAL BOARD SPEAKERS	L	
J5		*	E11-0208-05	PHONE JACK PHONES		
J10		*	E11-0188-05	PHONE JACK SYSTEM CONTROL		
-		*	J11-0098-05	WIRE CLAMPER		
-		*	J61-0307-05	WIRE BAND		
L1, 2		*	L40-1011-47	SMALL FIXED INDUCTOR(100UH, K)		
L3, 4		*	L39-0085-05	PHASE-COMPENSATION COIL		
L5, 6		*	L40-1011-17	SMALL FIXED INDUCTOR(100UH, K)		
G	1C, 2C	*	N89-3008-45	BINDING HEAD TAPTITE SCREW		
H	1C, 2C	*	N89-3012-45	BINDING HEAD TAPTITE SCREW		
CP1, 2		*	R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R73, 74		*	RN14BK2C1003FTS	RN 100K F 1/6W		
R77, 78		*	RN14BK2C3480FTS	RN 348.0 F 1/6W		
R83, 86		*	RD14AB2E100JTS	FL-PROOF RD 10 J 1/4W		
R93, 94		*	RN14BK2E1003FTS	RN 100K F 1/4W		
R95, 96		*	RN14BK2E6192FTS	RN 61.9K F 1/4W		
R99, 100		*	RS14GB3A100JKW	FL-PROOF RS 10 J 1W		
R101, 102		*	RD14AB2E8R2JTS	FL-PROOF RD 8.2 J 1/4W		
R103, 104		*	RS14GB3A100JKW	FL-PROOF RS 10 J 1W		
R105, 106		*	RS14DB3D151JTE	FL-PROOF RS 150 J 2W		
R107, 108		*	RN14BK2E68R1FTS	RN 68.1 F 1/4W		
R111, 112		*	RN14BK2E2372FTS	RN 23.7K F 1/4W		
R220		*	RS14DB3D121JTE	FL-PROOF RS 120 J 2W		
R221		*	RS14DB3D181JTE	FL-PROOF RS 180 J 2W		
R239		*	RS14DB3D102JTE	FL-PROOF RS 1.0K J 2W		
R243		*	RS14GB3A220JKW	FL-PROOF RS 22 J 1W		
R244		*	RS14GB3A101JKW	FL-PROOF RS 100 J 1W		
VR1, 2		*	R12-1083-05	TRIM POT. 1K		
K1		*	S51-2092-05	MAGNETIC RELAY		
K2, 7		*	S51-2089-05	MAGNETIC RELAY		
S1		*	S40-6035-05	PUSH SWITCH		
S4		*	S42-2139-05	MULTIPLE PUSH SWITCH		
D1, 28		*	HSS104	DIODE		
D1, 28		*	1SS133	DIODE		
D29, 30		*	HSS104A	DIODE		
D29, 30		*	1SS131	DIODE		
D31, 32		*	HZS24N(B)	ZENER DIODE		
D31, 32		*	RD24ES(B)	ZENER DIODE		
D33, 38		*	HZS11N(B)	ZENER DIODE		
D33, 38		*	RD11ES(B)	ZENER DIODE		
D49		*	HZS5.1S(B2)	ZENER DIODE		
D49		*	RD5.1JS(B2)	ZENER DIODE		

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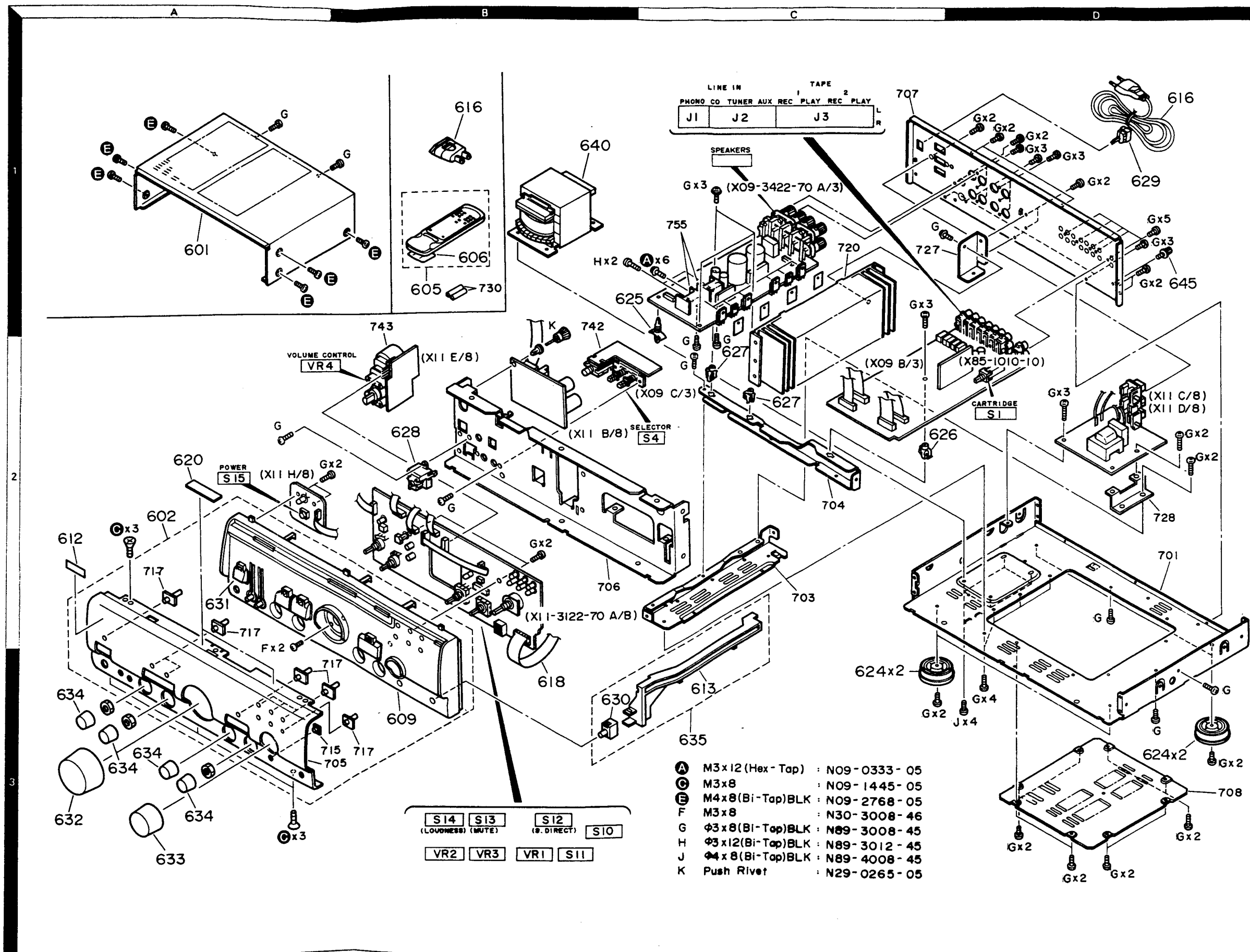
△ indicates safety critical components.

KA-4040R

EXPLODED VIEW

KA-4040R

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

* New Parts

Parts without Parts No. are not supplied.

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Teile ohne Parts No. werden nicht geliefert.

No. 4

Ref. No. 参照番号	Address 位置	New Parts	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
D50			HZS15S(B)	ZENER DIODE		
D50			RD15JS(B)	ZENER DIODE		
D51			HZS20S(B)	ZENER DIODE		
D51			RD20JS(B)	ZENER DIODE		
D52, 53			HSS104A	DIODE		
D52, 53			1SS131	DIODE		
D54			D5SBA20F03	DIODE		
D54			RBV-602LFA	DIODE		
D55			HSS104A	DIODE		
D55			1SS131	DIODE		
D60 -68			HSS104A	DIODE		
D60 -68			1SS131	DIODE		
IC1, 2			UPC1298V	IC(POWER AMP DRIVER)		
IC13			UPC1237HA	IC(POWER AMP)		
IC17, 18			ON3134	IC(OPTICAL ISOLATOR)		
IC19-22			LC4966	IC(CMOS LOGIC BILATERAL SW)		
IC23			NJM4565D-D	IC(OP AMP X2)		
Q1 -4			2SC2878(B)	TRANSISTOR		
Q5, 6			2SC1845(F,E)	TRANSISTOR		
Q7 -10			DTC143TS	DIGITAL TRANSISTOR		
Q15			2SA992(F,E)	TRANSISTOR		
Q16, 17			DTC143TS	DIGITAL TRANSISTOR		
Q21			2SD882(Q,P)	TRANSISTOR		
Q22			2SB772(Q,P)	TRANSISTOR		
Q23, 24			2SD882(Q,P)	TRANSISTOR		
Q25			DTA124ES	DIGITAL TRANSISTOR		
Q26			DTC143TS	DIGITAL TRANSISTOR		
CONTROL UNIT (X11-3121-XX)						
D14 -22			B30-1291-05	LED		
D33			B30-1291-05	LED		
C1, 2			CF92FV1H334J	MF 0.33UF J		
C3 -8			CF92FV1H101K	MF 100PF K		
C9 -12			CF92FV1H334J	MF 0.33UF J		
C13 -16			CE04KW1H100M	ELECTRO 10UF 35WV		
C17 -20			CF92FV1H223J	MF 0.022UF J		
C21, 22			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C23, 24			CF92FV1H561J	MF 560PF J		
C25, 26			CF92FV1H101K	MF 100PF K		
C27, 28			CF92FV1H331K	MF 330PF K		
C29, 30			CF92FV1H683J	MF 0.068UF J		
C102			CF92FV1H471J	MF 470PF J		
C103			CE04KW1H100M	ELECTRO 10UF 50WV		
C104			C90-1827-05	BACKUP 0.047F 5.5WV		
C105, 106			CK45FB1H332K	CERAMIC 3300PF K		
C107			CF92FV1H223J	MF 0.022UF J		
C108			CF92FV1H103J	MF 0.010UF J		
C109			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C110			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C111, 112			CE04KW1E331M	ELECTRO 330UF 25WV		
C113, 114			CE04KW1E470M	ELECTRO 47UF 25WV		
C116, 117			CF92FV1H103J	MF 0.010UF J		
C118			CE04KW1H100M	ELECTRO 10UF 50WV		
C119			CF92FV1H103J	MF 0.010UF J		
C120			CE04KW1E102M	ELECTRO 1000UF 25WV		

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No. 5

Ref. No. 参照番号	Address 位置	New Parts	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
C122, 123			CE04KW1J102M	ELECTRO 1000UF 63WV		
C124			CE04KW1A221M	ELECTRO 220UF 10WV		
C125			CF92FV1H223J	MF 0.022UF J		
C126, 127			CE04KW1H100M	ELECTRO 10UF 50WV		
C130			CF92FV1H104J	MF 0.10UF J		
C131			CE04KW1H470M	ELECTRO 47UF 50WV		
C132			CE04KW1V101M	ELECTRO 100UF 35WV		
C133, 134			CF92FV1H104J	MF 0.10UF J		
C135			C90-1332-05	NP-ELEC 10UF 25WV		
C136			CE04KW1H100M	ELECTRO 10UF 50WV		
C138-140			CE04KW1H100M	ELECTRO 10UF 50WV		
C141			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C142			CK45FF1H103Z	CERAMIC 0.010UF Z		
C143			CK45FE2H103P	CERAMIC 0.010UF P		
C188, 189			C91-1421-05	FILM 0.01UF 250AC	ELTXM	
C190, 191			C91-0971-05	FILM 0.01UF 250WV	P	
C190, 191			C91-1421-05	FILM 0.01UF 250AC	Y	
C215, 216			CF92FV1H103J	MF 0.010UF J		
C217			CK45FB1H471K	CERAMIC 470PF K		
J1			E03-0108-05	AC OUTLET	ELM	
J1			E03-0109-05	AC OUTLET	T	
J2			E03-0111-05	AC OUTLET	YP	
F1			F04-5022-05	FUSE (UL) (125V 5A UL)	P	
F1, 2			F05-2525-05	FUSE (SEMKO) (250V T2.5A)	TX	
F3			F05-2525-05	FUSE (SEMKO) (250V T2.5A)	ELM	
F3, 4			F05-2525-05	FUSE (SEMKO) (250V T2.5A)		
CN3 -6			J13-0075-05	FUSE CLIP	Y	
CN3, 4			J13-0075-05	FUSE CLIP	P	
CN13-16			J13-0075-05	FUSE CLIP	ELM	
CN13, 14			J13-0075-05	FUSE CLIP	TX	
L1, 2			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)	P	
L40 -42			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)	Y	
T1			L01-7651-05	POWER TRANSFORMER	ELM	
T1			L01-7653-05	POWER TRANSFORMER		
T2			L01-7653-05	POWER TRANSFORMER		
X1			L01-7657-05	POWER TRANSFORMER	TX	
			L78-0267-05	RESONATOR 4MHz		
G	2A, 3B		N89-3008-45	BINDING HEAD TAPTITE SCREW		
H	2A, 3B		N89-3012-45	BINDING HEAD TAPTITE SCREW		
R39, 40			RN14BK2C1211FTS	RN 1.21K F 1/6W		
R113, 114			RS14DB3D222JTE	FL-PROOF RS 2.2K J 2W		
R160			RS14DB3A470JTE	FL-PROOF RS 47 J 1W		
R174			RS14DB3D470JTE	FL-PROOF RS 47 J 2W		
R175			RS14DB3A220JTE	FL-PROOF RS 22 J 1W		
R176, 177			RS14DB3A100JTE	FL-PROOF RS 10 J 1W		
R180, 181			RS14DB3D121JTE	FL-PROOF RS 120 J 2W		
R190			RS14DB3D820JTE	FL-PROOF RS 82 J 2W		
R191			RD14AB2E120JTS	FL-PROOF RD 12 J 1/4W		
R194			RS14DB3A152JTE	FL-PROOF RS 1.5K J 1W		
VR1		*	R06-5191-05	POTENTIOMETER BALANCE		
VR2, 3		*	R06-3061-05	POTENTIOMETER BASS, TREBLE		
VR4		*	R29-5058-05	POTENTIOMETER MASTER VOLUME		

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PARTS LIST

KA-4040R

× New Parts

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Teile ohne Parts No. werden nicht geliefert.

No. 6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
K1 K2 S11 S12 -15 S16		*	S51-1052-05 S51-1052-05 S60-0009-05 S40-1064-05 S31-2322-05	MAGNETIC RELAY MAGNETIC RELAY ROTARY SWITCH RECOUT SELECTOR PUSH SWITCH SLIDE SWITCH VOLTAGE SELECT	YP ELTXM M	
S16 ,17 S17			S62-0001-05 S62-0001-05	SLIDE SWITCH VOLTAGE SELECT SLIDE SWITCH VOLTAGE SELECT	Y M	
S10		*	T99-0521-05	ROTARY ENCODER INPUT SELECTOR		
D10 -13 D10 -13 D23 D23 D24			HSS104 1SS133 HZS2.7N(B) RD2.7ES(B) HSS104	DIODE DIODE ZENER DIODE ZENER DIODE DIODE		
D24 D25 D25 D26 -32 D34 -39			1SS133 HSS104A 1SS131 S56888 HSS104	DIODE DIODE DIODE DIODE DIODE	YP YP	
D34 -39 D40 D41 D41 D42			1SS133 S56888 HSS104 1SS133 S56888	DIODE DIODE DIODE DIODE DIODE		
D43 ,44 D43 ,44 D45 D45 D46			HZS16N(B2) RD16ES(B2) HSS104 1SS133 HSS104A	ZENER DIODE ZENER DIODE DIODE DIODE DIODE	ELTXM	
D46 D51 D51 D52 D53			1SS131 HZS24N(B) RD24ES(B) S56888 HSS104	DIODE ZENER DIODE ZENER DIODE DIODE DIODE	ELTXM	
D53 D54 D54 IC1 IC2			1SS133 HSS104A 1SS131 NJM4565D-D PST529C	DIODE DIODE DIODE IC(OP AMP X2) IC(SYSTEM RESET)		
IC3 IC4 IC5 IC6 IC6		*	UPD75104GF-778 TC9163N TA8409S TA7805S UPC7805HF	IC IC(BILATERAL SWITCH X16) IC(MOTOR CONTROL) IC(VOLTAGE REGULATOR/ +5V) IC(VOLTAGE REGULATOR/ +5V)		
IC11 IC11 Q1 ,2 Q51 Q51			TA7812S UPC7812HF 2SC2878(B) DTA124ES UN4112	IC(VOLTAGE REGULATOR/ +12V) IC(VOLTAGE REGULATOR/ +12V) TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
Q52 Q52 Q53 Q53 Q54			DTC124ES UN4212 2SC1740S(Q,R) 2SC3311A(Q,R) 2SC2003(L,K)	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		

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× New Parts

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Teile ohne Parts No. werden nicht geliefert.

No. 7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
Q55 Q55 Q56 A1			2SA1309A(Q,R) 2SA933S(Q,R) 2SD1266(Q,P) W02-1046-05	TRANSISTOR TRANSISTOR TRANSISTOR ELECTRIC CIRCUIT MODULE		
PRE AMPLIFIER UNIT (X85-1010-010)						
C1 ,2 C3 ,4 C5 ,6 C7 ,8 R7 ,8 R9 ,10 IC1 Q5 -8 Q5 -8			CF92FV1H392J CF92FV1H113J CF92FV1H393J C90-1332-05 RN14BK2C6811FTS RN14BK2C8252FTS NJM4560D-N 2SK170(BL) 2SK170(V)	MF 3900PF J MF 0.011UF J MF 0.039UF J NP-ELEC 10UF 25WV RN 6.81K F 1/6W RN 82.5K F 1/6W IC FET FET		

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PARTS LIST

KA-4040R

SPECIFICATIONS

(For U.K. and Europe)

Continuous rated power output

(DIN) 1 kHz, at 8 Ω	70 W + 70 W
at 4 Ω	90 W + 90 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.	
at 8 Ω	70 W + 70 W
at 4 Ω	90 W + 90 W
Dynamic power.....	90 W (8 Ω)
	120 W (4 Ω)
	140 W (2 Ω)

Total harmonic distortion

..... 0.06% (20 Hz ~ 20,000 Hz, 60 W, 8 Ω)	
..... 0.03% (1 kHz, 60 W, 8 Ω)	

Intermodulation distortion 0.06% (60 W, 8 Ω)
(70 Hz : 7 kHz = 4:1)

Frequency response

CD 5 Hz ~ 100 kHz, +0 dB, -3 dB

PHONO 'RIAA' response

..... 20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB

Maximum input level

PHONO (MM) 120 mV, 0.06% T.H.D. at 1 kHz

PHONO (MC) 10 mV, 0.06% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) 87 dB (IHF '66)/80 dB (IHF '78)

PHONO (MC) 67 dB (IHF '66)/74 dB (IHF '78)

CD/TUNER/AUX/TAPE

..... 101 dB (IHF '66)/82 dB (IHF '78)

PHONO (MM) 58 dB (DIN, 50 mW output)

CD/TUNER/AUX/TAPE

..... 59 dB (DIN, 50 mW output)

Input sensitivity/impedance

PHONO (MM).....	2.5 mV/47 k Ω
PHONO (MC).....	0.2 mV/100 Ω
CD/TUNER/AUX/TAPE.....	200 mV/47 k Ω

Tone control

BASS ± 10 dB (at 100 Hz)TREBLE..... ± 10 dB (at 10 kHz)

Loudness control

VOLUME at -30 dB level

..... +6 dB (100Hz), +3 dB (10 kHz)

Output level/impedance

TAPE REC..... 200 mV/1 k Ω

General

Power consumption 200 W

AC outlet

SWITCHED 200 W max.

Dimensions..... W: 440 mm (17-5/16")

H: 137 mm (5-3/8")

D: 345 mm (13-9/16")

Weight (net) 8.7 kg (19.2 lb)

(For other countries)

Continuous rated power output

(IHF '66) From 20 Hz to 20,000 Hz 0.06% T.H.D.	
at 8 Ω	60 W + 60 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.	
at 8 Ω	70 W + 70 W
at 4 Ω	90 W + 90 W
Dynamic power.....	90 W (8 Ω)
	120 W (4 Ω)
	140 W (2 Ω)

Damping factor..... 60 (50 Hz)

Total harmonic distortion

..... 0.06% (20 Hz ~ 20,000 Hz, 60 W, 8 Ω)	
..... 0.03% (1 kHz, 60 W, 8 Ω)	

Intermodulation distortion 0.06% (60 W, 8 Ω)
(70 Hz : 7 kHz = 4:1)

Frequency response

CD 5 Hz ~ 100 kHz, +0 dB, -3 dB

PHONO 'RIAA' response

..... 20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB

Maximum input level

PHONO (MM) 120 mV, 0.06% T.H.D. at 1 kHz

PHONO (MC) 10 mV, 0.06% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) 87 dB (IHF '66)/80 dB (IHF '78)

PHONO (MC) 67 dB (IHF '66)/74 dB (IHF '78)

CD/TUNER/AUX/TAPE

..... 101 dB (IHF '66)/82 dB (IHF '78)

Input sensitivity/impedance

PHONO (MM).....	2.5 mV/47 k Ω
PHONO (MC).....	0.2 mV/100 Ω
CD/TUNER/AUX/TAPE.....	200 mV/47 k Ω

Tone control

BASS ± 10 dB (at 100 Hz)TREBLE..... ± 10 dB (at 10 kHz)

Loudness control

VOLUME at -30 dB level

..... +6 dB (100Hz), +3 dB (10 kHz)

Output level/impedance

TAPE REC..... 200 mV/1 k Ω

General

Power consumption 200 W

AC outlet

SWITCHED Total 200 W max.

Dimensions..... W: 440 mm (17-5/16")

H: 137 mm (5-3/8")

D: 345 mm (13-9/16")

Weight (net) 8.7 kg (19.2 lb)

KA-4040R

SPECIFICATIONS

(For Canada)

Continuous rated power output (FTC)

60 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.06% total harmonic distortion.

Dynamic power.....	90 W (8 Ω)
.....	120 W (4 Ω)
.....	140 W (2 Ω)
Damping factor.....	60 (50 Hz)
Total harmonic distortion	0.06% (20 Hz ~ 20,000 Hz, 60 W, 8 Ω)
.....	0.03% (1 kHz, 60 W, 8 Ω)
Intermodulation distortion.....	0.06% (60 W, 8 Ω)
(70 Hz : 7 kHz = 4:1)	
Frequency response	
CD.....	5 Hz ~ 80 kHz, +0 dB, -3 dB
PHONO 'RIAA' response	20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum input level	
PHONO (MM).....	120 mV, 0.06% T.H.D. at 1 kHz
PHONO (MC)	10 mV, 0.06% T.H.D. at 1 kHz
Signal to noise ratio	
PHONO (MM).....	87 dB (IHF '66)/80 dB (IHF '78)
PHONO (MC)	67 dB (IHF '66)/74 dB (IHF '78)
CD/TUNER/AUX/TAPE.....	101 dB (IHF '66)/82 dB (IHF '78)
Input sensitivity/impedance	
PHONO (MM).....	2.5 mV/47 k Ω
PHONO (MC)	0.2 mV/100 Ω
CD/TUNER/AUX/TAPE.....	200 mV/47 k Ω
Tone control	
BASS.....	\pm 10 dB (at 100 Hz)
TREBLE	\pm 10 dB (at 10 kHz)
Loudness control	
VOLUME at - 30 dB level	+ 6 dB (100Hz), + 3 dB (10 kHz)
Output level/impedance	
TAPE REC	200 mV/1 k Ω

General

Power consumption	2.5 A
AC outlets	
SWITCHED	For Canada:
	3; (Total 200 W, 1.6 A max.)
Dimensions	W: 440 mm (17-5/16")
	H: 137 mm (5-3/8")
	D: 345 mm (13-9/16")
Weight (net)	8.7 kg (19.2 lb)

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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